Abstract

A power amplifying apparatus has: a signal converting section (20) which converts an input signal of an orthogonal coordinate system to an amplitude signal and phase signal of a polar coordinate system, which then converts the phase signal to an orthogonal-coordinate phase signal of the orthogonal coordinate system, and which outputs the amplitude signal and the orthogonal-coordinate phase signal; a modulating section (30) which performs orthogonal modulation on the orthogonal-coordinate phase signal, and which outputs the modulated signal to a nonlinear power amplifier (2); and a correcting section (40) which outputs a gain control signal for the nonlinear power amplifier (2). The correcting section (40) has a correction LUT which is produced on the basis of an output signal of the nonlinear power amplifier (2) and the input signal of the orthogonal coordinate system, and outputs the gain control signal with reference to the correction LUT on the basis of the amplitude signal.